

CLAIMS

1. Sheet tobacco comprising:

a tobacco powder layer containing a tobacco powder material and a binder; and

- 5 a carrier layer covering one side of said tobacco powder layer and made of nonwoven plant fibers.

2. The sheet tobacco according to claim 1, further comprising a cover layer covering the other side of said tobacco powder layer and made of nonwoven plant fibers.

- 10 3. The sheet tobacco according to claim 1 or 2, wherein said tobacco powder layer has a basis weight of 30 to 200 g/m², and said carrier layer and said cover layer each have a basis weight of 3 to 50 g/m².

- 15 4. The sheet tobacco according to any one of claims 1 through 3, wherein said tobacco powder layer has a binder content of not greater than 15% by weight with respect to the tobacco powder material.

- 5 The sheet tobacco according to any one of claims 1 through 4, wherein the binder is used to bind the tobacco powder material and also to bind together the plant fibers of at least one of said carrier layer and said cover layer.

6. The sheet tobacco according to any one of claims 1 through 5, wherein the binder contains cornstarch.

- 25 7. The sheet tobacco according to any one of claims 1 through 6, further comprising a tobacco particle layer sandwiched between said tobacco powder layer and said carrier layer or between said cover layer and said tobacco powder layer, said tobacco particle layer containing particles of tobacco stems and laminas.

- 30 8. A sheet tobacco manufacturing process comprising:
a preparing step of preparing a carrier sheet of nonwoven plant fibers;

a forming step of spreading a tobacco powder material

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on said carrier sheet to form a tobacco powder layer covering one side of said carrier sheet;

an adding step of adding a binder to said tobacco powder layer during or after said forming step; and

5 a binding step of binding the tobacco powder material in said tobacco powder layer as well as said tobacco powder layer and said carrier sheet to each other by means of the binder.

10 9. The process according to claim 8, wherein said carrier sheet is formed in said preparing step by a dry nonwoven fabric production process, and said forming step is performed continuously following the formation of said carrier sheet to form said tobacco powder layer on the one side of said carrier sheet.

15 10. The process according to claim 8 or 9, further comprising an intermediate step performed between said forming step and said binding step, to form a cover sheet of nonwoven plant fibers covering the other side of said tobacco powder layer.

20 11. The process according to claim 10, wherein said intermediate step is performed following the formation of said tobacco powder layer, to form said cover sheet by a dry nonwoven fabric production process.

25 12. The process according to claim 8 or 11, wherein in said binding step, the plant fibers of at least one of said carrier sheet and said cover sheet are bound together by means of the binder.

30 13. The process according to claim 8, wherein in said adding step, a binder of powder form is added during the formation of said tobacco powder layer.

14. The process according to claim 13, wherein the binder contains cornstarch.

15. The process according to claim 13 or 14, further

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comprising an infiltrating step performed prior to said binding step, to cause a solvent for the binder to infiltrate into said tobacco powder layer admixed with the binder as well as into said carrier sheet.

5 16. The process according to claim 15, wherein in said binding step, said tobacco powder layer and said carrier sheet are pressed with heat applied thereto.

10 17. The process according to claim 8 or 10, further comprising a step of forming a tobacco particle layer between said carrier sheet and said tobacco powder layer or between said tobacco powder layer and said cover sheet, said tobacco particle layer containing particles of tobacco stems and laminas.

15 18. A sheet tobacco manufacturing system comprising: an endless net conveyor traveling in one direction; an upstream-side forming device arranged at an upstream portion of said net conveyor, for forming a carrier sheet of nonwoven plant fibers on said net conveyor;

20 a powder spreading device arranged on a downstream side of said upstream-side forming device, for spreading a tobacco powder material on the carrier sheet to form a tobacco powder layer covering the carrier sheet; and

25 a pressing device arranged on a downstream side of said powder spreading device, for heating and pressing the carrier sheet and the tobacco powder layer.

30 19. The system according to claim 18, further comprising a spraying device arranged on an upstream side of said upstream-side forming device, for wetting in advance said net conveyor with a predetermined liquid.

20. The system according to claim 18 or 19, further comprising a downstream-side forming device arranged between said powder spreading device and said pressing

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machine, for forming a cover sheet of nonwoven plant fibers covering the tobacco powder layer.

21. The system according to claim 20, wherein said downstream-side forming device includes a fiber spreading unit arranged above said net conveyor for spreading plant fibers toward said net conveyor, a mesh conveyor arranged between the fiber spreading unit and said net conveyor, the mesh conveyor sucking thereon the plant fibers spread from the fiber spreading unit to form a cover sheet and transporting the cover sheet toward said net conveyor, and peeling means for peeling the cover sheet from the mesh conveyor to allow the cover sheet on the mesh conveyor to be transferred onto the tobacco powder layer.

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